PHASE III PROJECT PLAN

Department of Education

Office of Student Financial Assistance

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1.0 INTRODUCTION

1.1 Project Plan Overview

This Project Plan applies to the Department of Education, Student Financial Assistance (SFA) - Modernization Partner project entitled FMS Phase III. The Project Plan is required reading of all team members and serves as a guideline for defining, measuring, and monitoring commitment to quality by all members of the FMS Phase III team.

1.2 Project Overview

FMS Phase III involves the development and deployment of the SFA FMS to support accounting for SFA's remaining program areas:

- Interim Payment Process
- Federal Family Education Loan (FFEL) Lender Payments
- Leveraging Educational Assistance Partnership Program/Special Leveraging Educational Assistance Partnership Program (LEAPP/SLEAPP)
- Direct Loan (Origination, Servicing and Consolidation)
- Debt Collection Services, Pell, and Campus Based Programs

Included in the project are activities related to implementing consistency across the programs for such functional areas as receivables management and payment processing. Also included in the work for each of the program areas are activities related to conversion of FY01 accounting data (balances) from the Department of Education (ED) CFO and program specific reports as needed.

1.2.1 Phase III Approach

Until such time that an SFA drawdown/payment portal can be implemented, payment will be processed either through the use of ED Grants Administrative and Payment System (GAPS), or using a method similar to the FFEL GA payments model implemented in Phase II (in which a payment file is prepared and transmitted to ED for certification and transmission to Treasury). While GAPS continues to be the payment mechanism, SFA FMS will serve as an intermediary to and from the individual program area systems (so that these financial-related transactions will be captured in FMS). Therefore, information about certain payments under some SFA programs will be captured in FMS at the General Ledger level only after GAPS has processed the payment. We will work closely with ED GAPS to work out accounting flows to ensure that SFA accounting information is not duplicated in ED FMSS (i.e., being sent from GAPS related to the payments and also being sent from FMS).

The following paragraphs describe our approach to interfacing each of the programs.

Interim Payment Process

Until such time that an SFA drawdown/payment portal can be implemented, payment will be processed either through the use of ED Grants Administrative and Payment System (GAPS), or using a method similar to the FFEL GA payments model implemented in Phase II (in which a payment file is prepared and transmitted to ED for certification and transmission to Treasury). While GAPS continues to be the payment mechanism, SFA FMS will serve as an intermediary to and from the individual program area systems (so that these financial-related transactions will be captured in FMS). Therefore, information about certain payments under some SFA programs will be captured in FMS at the General Ledger level only after GAPS has processed the payment. We will work closely with ED CFO to work out accounting flows to ensure that SFA accounting information is not unnecessarily duplicated in ED FMSS (i.e., being sent from GAPS related to the payments and also being sent from FMS). It is also planned that Treasury confirmation data will be interfaced in to FMS for all payments.

FFEL Lenders

FMS Phase II implemented new business processes and payment mechanisms for the FFEL Guaranty Agency payments. Phase III efforts will result in accounting transactions related to Lender payments from the current FFEL system (i.e., the current accounting and/or payment files from the Raytheon system) being translated into the correct SFA FMS accounting structure and interfaced to the SFA FMS General Ledger. In order to meet the requirements for Credit Form reporting, in conjunction with their being summarized for transmission to ED CFO's accounting system, the transactions will be split according to the percentages provided by the ED Budget Office. This approach will allow SFA FMS to house the FFEL Lender accounting data until the FFEL reporting and payment process is reengineered through a future business case and work effort. While there are changes that will be implemented in the accounting flow, payment file information from the current FFEL contractor will continue to be verified by the SFA Financial Partners Channel and transmitted to ED CFO for certification and transmission to Treasury.

LEAPP/SLEAPP

This work effort entails a set of activities geared toward automating the LEAPP/SLEAPP application and award processes in addition to implementing the data flows so that the program accounting transactions are in FMS. This effort assesses the accounting changes designed and built (though not implemented) during FMS Phase II based on the relationship between SFA and GAPS, implements new accounting flow designs as needed, and adds the new LEAPP/SLEAPP web-based application. There is also a year-end web-based reporting requirement for the program that is included in this task. LEAPP/SLEAPP payments will be processed via the GAPS payment process flow, and records of this information will be interfaced from GAPS to FMS.

Direct Loans

This work package involves implementing interfaces such that complete budgetary and proprietary accounting transactions related to Direct Loan Origination (LO), Servicing (LS), Consolidation (LC) and subsidy expenses will be recorded in SFA FMS. While an optimal approach would interface from the existing Direct Loan Servicing system (DLSS), there is also consideration being given to the use of the interface file(s) that are currently sent from FARS (for LO, LS and LC) to ED CFO's accounting system (ieFARS). We also expect to capture some Direct Loan information that is not currently sent to ieFARS, such as transactions related to unbooked disbursement/unbooked loan records. The approach for Direct Loans is intended to minimize development efforts for interfaces and other components that will likely require modification when the new Common Origination and Disbursement (COD) system is implemented, while providing full program accounting. In order to ensure that FMS requirements and interfaces are identified for the other Modernization projects, FMS team members will be participating in the discussions and design efforts for both COD and Enterprise Architecture Integration (EAI). Direct Loan program related payments, other than refunds, will be accomplished through the GAPS payment process flow. The LS refund payment process will be assessed to determine the feasibility of the refunds being processed through the AP module of FMS.

Pell

For the Pell program, like the other SFA programs, the objective is to ensure that the program's accounting transactions are recorded in SFA FMS. While it was expected that SFA FMS would replace the program's current subsidiary ledger, other alternative data flows will be investigated to determine a solution acceptable to both SFA CFO and the Schools Channel. This program will be impacted by the COD implementation, and therefore attempts will be made to minimize the FMS development efforts associated with interfacing to existing systems. Detailed work with program area representatives is required to ensure that their needs are met while also adhering to the accounting principles and business processes that are set by SFA CFO. Development activities primarily include interfaces to and from the program systems, and the associated reconciliation and reporting needs. Payments made related to the Pell program will follow the GAPS related payment process flow.

Campus Based Programs

This work package will entail interfacing with the Campus Based feeder system (CBS), where payments will continue to be processed via GAPS. Additionally, Perkins Loan balance sheet information will be captured in FMS. One of the complexities of the solution for this program area is that the Campus Based feeder system is undergoing a change, potentially in contractor support and also in reengineering. The current plan is to develop the FMS interface(s) using the current system output data format when possible, and keeping the new CBS system development team apprised of any deviations from that. Based upon our current discussions, the new CBS system development team will develop extracts from the new system that will be the same as those from the current system, other than changes that are identified during this FMS Phase III task.

Debt Collection Services

This task package anticipates modifying the current Debt Management and Collection System (DMSC) to allow FMS to assume the accounting functions for DCS summary level data and interfacing refund payment data from DMCS to FMS. Based on input from the SFA CFO's office, we will work with the SFA CFO Accounting office and Debt Collection Services representatives to analyze the loan transaction and accounting information from DMCS to ensure that SFA's accounting requirements (including Credit Reform) are met as changes to the accounting structure are implemented. It is anticipated that the refund payment process implemented will be similar to that of the FFEL GA and Lender payment process, with a payment file generated and transmitted to ED CFO. There will be interface and business process complexities related to the refund processing to ensure that payee information is complete for payments in the FMS AP module, to ensure system and business process performance is adequate for the number of refunds, and to ensure that the accounting flows do not include duplicate entries (one from the accounting interface and one from the FMS refund payment process). The DCS solution identified above is dependent upon cooperative work arrangements with the current DCS contractor (Raytheon) for both design and development related activities and FFEL Retirement discussions. Should such interaction with Raytheon not occur, the back-up plan for DCS is to follow the same approach as that to be implemented in Phase III for the FFEL Lender Payments described above.

1.3 Responsibility for the Plan

The Project Plan was prepared by the Project Manager, who is also responsible for updating it for any significant changes in its contents such as:

- Project scope;
- Project methods, standards, and approach; and
- Project quality.

The initial issue of this Project Plan, and all major versions, will be reviewed and approved by the SFA Project Manager. The most up-to-date version is available in electronic format in the FMS Phase III directory and is accessible to all FMS Phase III team members, project management, and the Software Quality Assurance Manager.

2.0 DELIVERABLES

The table below provides a listing of the deliverable milestones for the FMS Phase III.

Deliverable #	Deliverable Name	Acceptance Criteria	Media	Due Date
45.1.1	FMS Phase III Project Work Plan (Summary Level)	Work Plan includes a summary level schedule of FMS Phase III programs. SFA project manager approval as accurately reflecting FMS Phase III implementation approach.	Microsoft Project	4/6/01
45.1.2	FMS Phase III Project Work Plan (Detailed Level)	Work Plan includes a program-based Work Breakdown Structure reflecting all planned development, implementation, transition, and training tasks associated with FMS Phase III. SFA project manager approval as accurately reflecting FMS Phase III implementation approach.	Microsoft Project	4/6/01
45.1.3	FMS Phase III Project Plan	Identifies FMS Phase III plans and procedures necessary to manage and execute project implementation and transition activities. SFA project manager approval as accurately reflecting FMS Phase III implementation approach.	Word doc	4/6/01
45.1.4	Release 3.1 – Test Plan	Identifies Release 3.1 system test plans and cases. Identifies user acceptance testing, as required.	Word doc	4/6/01

Deliverable #	Deliverable Name	Acceptance Criteria	Media	Due Date
		SFA project manager approval as accurately reflecting that test planning is ready to begin system test.		
45.1.5	Release 3.1 – Production Readiness Review	Presentation that addresses readiness of software, data conversion, technology infrastructure, affected organizations and people, and severity and volume of open issues. SFA project manager approval as accurately reflecting that Release 3.1 is production ready.	Power Point Presentation	4/6/01
45.1.6	Release 3.2 – Test Plan	Identifies Release 3.2 system test plans and cases. Identifies user acceptance testing, as required. SFA project manager approval as accurately reflecting that test planning is ready to begin system test.	Word doc	5/15/01
45.1.7	Release 3.2 – Production Readiness Review	Presentation that addresses readiness of software, data conversion, technology infrastructure, affected organizations and people, and severity and volume of open issues. SFA project manager approval as accurately reflecting that Release 3.2 is production ready.	Power Point Presentation	6/1/01

Deliverable #	Deliverable Name	Acceptance Criteria	Media	Due Date
45.1.8	Release 3.3 – Test Plan	Identifies Release 3.3 system test plans and cases. Identifies user acceptance testing, as required. SFA project manager approval as accurately reflecting that test planning is ready to begin system test.	Word doc	7/2/01
45.1.9	Release 3.3 – Production Readiness Review	Presentation that addresses readiness of software, data conversion, technology infrastructure, affected organizations and people, and severity and volume of open issues. SFA project manager approval as accurately reflecting that Release 3.3 is production ready.	Power Point Presentation	8/1/01
45.1.10	FMS Phase III Transition Plan	Identifies FMS Phase III transition plans within SFA and between the Department of Education, as well as, system end users. SFA project manager approval as accurately reflecting transition plans.	Word doc	5/17/01
45.1.11	FMS Phase III Transition Report	Identifies FMS Phase III transition issues within SFA, and with the Department of Education, and system end users. SFA project manager approval as accurately reflecting outcomes and issues of FMS Phase III transition.	Word doc	5/01
45.1.12	FMS Phase III	Identifies FMS Phase III	Word doc	4/16/01

Deliverable #	Deliverable Name	Acceptance Criteria	Media	Due Date
	Training Plan	training plans within SFA and the Department of Education, as well as, system end users (as identified through training needs analysis). SFA project manager approval as accurately reflecting training plans.		
45.1.13	FMS Phase III Training Support Materials	Includes all training materials used in the conduct of FMS Phase III training. SFA project manager approval as accurately reflecting that Release 3.3 is production ready.	Word doc, Power Point Presentation, and, Tutor materials	9/13/01
45.1.14	FMS Phase III Technical Architecture Design	Details the FMS Phase III Technical Architecture Design necessary to operate and maintain development, test, and production environments. SFA project manager approval as accurately reflecting the Technical Architecture Design.	Word doc.	4/6/01

3.0 PROJECT TIMETABLE AND SCHEDULE MONITORING

3.1 Project Work Plan

The Project Work plan with schedule is included as an attachment in the Overall Project Plan Composite. The project Work Plan is included as Appendix A. The project organizational chart is included as Appendix B.

3.2 Project Timetable

The FMS Phase III work will start on November 1, 2000 and is planned to be completed by October 31, 2001

There will be three major software releases. These are:

- April 2001 - LEAPP/SLEAPP Web-based Application Form
- June 2001 - LEAPP/SLEAPP Automated Award Process
- August 2001 - Campus Based; Debt Collection Service; FFEL Lenders, Interim Payment Process; Direct Loan Origination; Direct Loan Servicing; Direct Loan Consolidation; PELL

3.3 Tools

Microsoft Project will be used to monitor project progress by using the tool's indices to indicate whether the project is meeting its target schedule and budget.

3.4 Inputs

Turnaround documents (T-Docs) are prepared every two weeks. The T-Doc records the actual hours spent by project team members on their assigned tasks.

3.5 Schedule Monitoring Processes

Turnaround documents (T-Docs) are submitted to team leads semi-monthly for review and approval. Project budget and schedule are tightly managed and reported in status metrics. Team leads that observe or anticipate excessive overtime are required to report this to the project manager.

The ITR and the project manager review semi-monthly job summaries to compare actual hours (budget) to original threshold amounts defined in the task order. The ITR and project manager will take corrective measures if deemed necessary based on these actuals. Due to the fixed fee arrangement under which the program operates, corrective measures are limited to adjusting the scope or the staffs mix.

3.6 Reports

The following table shows the project management reports generated. Reports are generally posted onto the FMS Phase III engagement database on the F drive. The individuals listed in the distribution list are informed of the availability of the reports through Microsoft Outlook.

Description/Contents	Frequency/ Schedule	Distribution
Team Leader Report	Weekly	Project Manager
Project Status Report	Weekly	Client, PMO
Heat Map	Weekly	PMO
Bi-Weekly Score Card	Bi-Weekly	Client, PMO
Monthly Status Report	Monthly	Client (COO), PMO

4.0 PROJECT METRICS

The following table summarizes the metrics by which the project will be managed and controlled. These measurements will be used to determine and identify problem areas, and will be the basis for further investigation and analysis. Project management meetings, team meetings, and quality sessions will be conducted to then develop action plans to address the identified problems and issues. Below is the description of each column:

Goal	Measurable objective
Question	What needs to be answered
Metric	Name of the metric as well as the formula
Responsible	Individual responsible for providing the information
Source	Document from which the measurements used to calculate the metric are obtained
Report	Means and frequency of reporting on progress. The measurement identified should be contained in the specified regular report.
Other users	Users of the metric, other than the project

GOAL	QUESTION	METRIC	RESP	SOURCE	REPORT	OTHER USERS
4.1 Cost/Budget						
CV <= 10%	Are we within budget?	Cost Variance (CV) = BCWP – ACWP	Project Manager	Budget, Job summary	SFA Financial Summary	PMO
4.2 Schedule						
100% of deliverables delivered on time	Are we on time to our client?	# of deliverables on time/ total # of deliverables	Project Manager	Project Plan	Microsoft Work Plan	PMO Steering Committee

GOAL	QUESTION	METRIC	RESP	SOURCE	REPORT	OTHER USERS
4.3 People						
Client Satisfaction Rating of 5	How satisfied are our clients?	Client Satisfaction Survey	Project Manager	Client Satisfaction Survey Form	Every 6 months	PMO Steering Committee
4.4 Quality						
100% SQA Audits On time	Are we conducting audits?	SQA Audits On time = Audits Conducted this month/Audits planned	ITR	SQA tracking sheet	Monthly Status Report	PMO
Requirement Traceability	Have we met the requirements?	# of requirements not met	Functional Manager	Requirement Traceability Matrix	Weekly Status Report	Steering Committee
Problem Rate	Are we effectively developing code?	# of errors/ # of test cases	Development Manager	Test Results Logs	Weekly Status Once Testing Begins	Steering Committee
Problem Fix Rate	Are we fixing the problems expediously?	Length of time to fix problems	Development Manager	Test Results Logs	Weekly Once Testing Begins	Steering Committee
4.5 Risk						
Risk Management	Are we managing our major issues?	Length of time to resolve major issues	Implementation Manager	Issue Data Base	Weekly Steering Committee Report	PMO Steering Committee

5.0 ORGANIZATION

5.1 Project Continuity

Accenture strives to provide continuity of key personnel across all phases of a project's lifecycle. This helps ensure scope containment between the original requirements outlined, discussed, and documented during the proposal process are adhered to in development and delivered. To facilitate this continuity the following individuals currently members of the FMS Phase III team, were members of the FMS Phase II - Oracle Federal Financials Implementation. In addition, these individuals were involved in defining the scope of Phase III efforts.

Francesca Keating – Project Manager

Barry Weiss – Implementation Manager

Sheila Modesitt – Functional Architect

Jeff Ross – Technical Architecture Manager

The following individuals were added to the team and were also critical in the definition of Phase III work scope.

Bill Walsleben – Integrated Technical Representative

Bill Loepp - Development Manager

Amy Woodson – Transition Manager

5.2 Project Roles and Responsibilities

5.2.1 Engagement Partner

The Engagement Partner has overall responsibility for the work Accenture performs at the project. As such, he/she sets overall direction, oversees contractual and financial management, and provides client relationship management.

5.2.2 Client Quality Management Assessment (CQMA) Partner

The CQMA Partner is an external, objective Accenture Equity partner who has vast client engagement experience. He/She is an advisor to the Engagement Team to help them achieve success for the client and Accenture. Some CQMA Partners may choose to include outside experts.

5.2.3 Software Quality Assurance (SQA) Reviewer

The SQA Reviewer comes from a pool of resources drawn from across projects. To ensure objectivity, these resources are allocated to support the SQA reviews of projects other than their own. The SQA reviewer must be trained and have significant project experience. SQA reviewers are managers and above that are responsible for verifying that processes and procedures are in place and reviewing the project outputs for compliance.

5.2.4 Integrated Technical Representative

The Integrated Technical Representative (ITR) is responsible for overall communication and representation between this project and other projects within the modernization effort. The ITR is also responsible for providing expert guidance to client executive sponsors in industry and functional areas.

5.2.5 Project Manager

The Project Manager is the Task Order lead and is responsible for the overall successful completion of the project. This includes project planning and management, resource planning and management, and financial/budget planning and management.

5.2.6 Implementation Manager

The Implementation Manager is responsible for guiding and supervising designers and programmers within the project. The Implementation Manager also aids in integrating this development effort with Phase II operations and maintenance.

5.2.7 Functional Architect

The Functional Architect is responsible for completing functional designs within the project. The Functional Architect is responsible for communicating with the client and team leads to ensure that design/functional issues are resolved efficiently and accurately. The Functional Architect is also responsible for:

5.2.8 Development Manager

The Development Manager is responsible for completing technical designs and their successful builds and implementations within a project. The Development Manager is also responsible for communicating with the client and team leads to ensure that design/functional issues are resolved efficiently.

5.2.9 Technical Architect

The Technical Architect will have responsibility for the integrated database and the related environment. The Technical Architect will have ownership of the database and responsibility for all physical and logical database design changes required. The Technical Architect will also have responsibility for documenting performance benchmarks and procedures required to optimize.

5.2.10 Transition Manager

The Transition Manager is responsible for all project transition, communication and training activities. The Transition Manager is also responsible for the definition and execution of these strategies and plans.

5.3 Organization Charts

Please see Appendix B for the Project Organization Chart, which depicts team structure under each manager and team lead. Appendix B also includes an organizational chart that depicts where the FMS Phase III Task Order fits within the overall Modernization Partner Organization.

5.4 Reporting Structure

The Project Manager is responsible for successful completion of all Phase III efforts. The Project Manager coordinates Phase III activities with the Integrated Technical Representative (ITR) for cross

channel and Modernization Partner wide integration. The FMS Phase III Project Manager reports issues and status to the Financial “White Box” lead, who is responsible for the success of all programs under the SFA CFO and Financial Partner General Manager. The “White Box” lead has a shadow “Black Box” partner who is responsible for executive level counsel and coordination. The “White Box” and “Black Box” leads report to the Partner Leadership Team.

The Implementation Manager and the Transition Manager report to the Project Manager and are responsible for the execution of all Phase III implementation tasks and deliverable products. The Functional Architect, Development Manager, Technical Architect, and Phase II Operations Lead all report to the Implementation Manager. The Training Manager and Communication lead report to the Transition Manager.

6.0 COMMUNICATION STRATEGY

6.1 Internal

6.1.1 Meetings

The project team will hold weekly status meetings to discuss progress, and address issues, risks, and concerns related to project deliverables, schedule, and other project activities. The Functional Architect, the Development Manager, the Technical Manager and the Training Manager will bring their written draft status reports to these meetings and be prepared to discuss them. The status reports will include bullet points summarizing Value Points; High-Level/Significant Achievements; Detail of Completed Activities; Work Planned for Next Period; Summary of Open Issues (cross referenced by issue tracking number to the Issues Database); and Summary of Open Risks. All status reports will be stored on the F drive. The meetings will also be used to conduct project information interchange activities where team members give a short talk on the tasks they are working on and share technical and functional knowledge with the rest of the team. Meetings will also be held between affected parties, as necessary, whenever issues concerning various individuals and/or groups need to be resolved.

Once a month, an FMS Phase III All Hands Meeting will take place. During these meetings, all team members are present, and team leads will each give an update on project status, risks, issues, and accomplishments. The FMS Phase III Leadership Team expects the results of these meetings to be summarized in meeting minutes.

6.1.2 Reporting

Each and every project team member is required to submit a weekly status report to his supervisor. The individual report should contain, in addition to the name of the person preparing the report, bullet points summarizing Value Points; High-Level/Significant Achievements; Detail of Completed Activities; Work Planned for Next Period; Summary of Open Issues (cross referenced by issue tracking number to the Issues Database); and Summary of Open Risks. All status reports will be stored on the F drive. The project manager prepares a weekly overall project status report, which is accessible to all team members through the FMS PHASE III engagement database on the F drive.

6.1.3 Day-to-Day Communication

Email is the primary means of communication among the project team members. Each team member is assigned an email id.

6.2 External

6.2.1 Meetings

Meetings will be held between the project team and outside parties, as necessary. Minutes of meetings will include the names of the attendees, and bullet points summarizing key items discusses, action points and responsibilities, and any decisions reached. Meeting minutes will be distributed by email and stored on the F drive.

6.2.2 Reporting

The Project Manager prepares and submits a regular status report to the client and to the Engagement Partner through the PMO. This report summarizes the information from the status reports submitted by

the Functional Architect, the Development Manager, the Technical Manager, the Transition Manager, and the Training Manager and is in the same format.

6.2.3 Day-to-day Communication

The project team will communicate externally with other groups by means of email and meetings.

6.2.4 Support Tools

Similar to on-site teams, on occasions where documents need to be exchanged with remote teams in incompatible platforms, the sending party will convert to a version readable to the receiving party. This could include saving down to a different version or saving as a different file type. For example, a Microsoft Word 2000 document might be saved down to a Microsoft Word 97 document.

7.0 QUALITY AND CONTINUOUS IMPROVEMENT INITIATIVES

7.1 Team Input Procedures

The following procedures will be implemented to obtain project team member inputs on quality and continuous improvement:

- The weekly status meetings will be used to solicit feedback and suggestions from team members regarding the quality of work and the effectiveness and efficiency of project processes. Sources and causes of errors will be discussed, common issues and problems will be determined, and best practices (or things that are going well) will be shared.
- The F drive within the FMS Phase III will be used to document hints, questions, and issues pertaining to how things can be done better, and what pitfalls are encountered in doing the day-to-day tasks.
- Quality Sessions will be conducted to incorporate best practices and improve the processes within the project team. These sessions will be scheduled by the SQA Manager, either as brown bag sessions or special team meetings.

7.2 Capability Maturity Model

The FMS Phase III team's goal is to achieve level three of the Capability Maturity Model (CMM). All team members will be briefed on the CMM and the necessary steps for meeting the level three criteria.

8.0 SOFTWARE DEVELOPMENT PROCESSES

This section highlights the major processes that will be undertaken by the project team and the corresponding key considerations with respect to Quality System requirements and the standards with regard to configuration management.

8.1 Software Development Procedures

The FMS Phase III project follows the Department of Education, Office of Student Financial Assistance (SFA) Software Development Process documented in the System Development Life Cycle (SDLC) Process Guide. The standards to be followed and the steps to be performed in the development of the work product(s) and components are defined and documented in System Development Life Cycle (SDLC) Process Guide and the FMS Phase III *Developer's Guidelines*, which is on the F drive.

The FMS Phase III follows the Overlapping Waterfall lifecycle:

Overlapping Waterfall

The overlapping waterfall software lifecycle model is a variation of the waterfall software lifecycle model that addresses incremental development. In the overlapping software lifecycle model, the product is developed in increments and each increment of the product is developed using the waterfall lifecycle model. An increment can be defined as another part of the same system (subsystem) that is being developed at the same time, or as an extension to the part of the system that was built in the previous increment. Thus, each increment is a stand-alone piece of software and each subsequent increment may build upon the previous one. Consider two increments of the software. While the first increment is in the testing stage, the second increment could be in the design stage. This results in an overlap of the software lifecycles. This project will have three separate releases, each representing a different increment.

8.2 Process Matrix

Stage	Task Package	Process guidance followed by project	Additional standards, templates, tools, and job aids
Project Management	Plan Project Execution	**SDLC Process Guide**	
45.1.4	Phase III Business Case and Approach	**SDLC Process Guide**	
45.1.6	Project Methodology and Deliverables	**SDLC Process Guide**	
45.1.8	Project Control and Reporting	**SDLC Process Guide**	
45.1.9	Manage Issues	**SDLC Process Guide**	Issues Database
45.1.10	Configuration Management Plan	**SDLC Process Guide**	
45.1.11	Conduct SQA Reviews	**SDLC Process Guide**	
45.1.11	Conduct CQMA Reviews	**SDLC Process Guide**	CQMA Database
Analysis– Design – Build-Test	Phase III Programs	**SDLC Process Guide**	

Stage	Task Package	Process guidance followed by project	Additional standards, templates, tools, and job aids
45.2.1	Release 3.1	**SDLC Process Guide**	F Drive Templates
45.2.1.1	Test Plan (Deliverable 45.2.1)	**SDLC Process Guide**	
45.2.1.2	Production Readiness Review (Deliverable 45.2.2)	**SDLC Process Guide**	
45.2.1.3	LEAPP\SLEAPP	**SDLC Process Guide**	
45.2.2	Release 3.2	**SDLC Process Guide**	
45.2.2.1	Test Plan (Deliverable 45.2.3)	**SDLC Process Guide**	
45.2.2.2	Production Readiness Review (Deliverable 45.2.4)	**SDLC Process Guide**	
45.2.2.3	Pell	**SDLC Process Guide**	
45.2.2.4	Campus Based	**SDLC Process Guide**	
45.2.2.5	DIRECT LOAN--Origination and Disbursement	**SDLC Process Guide**	
45.2.2.6	DIRECT LOAN--Servicing	**SDLC Process Guide**	
45.2.2.7	DIRECT LOAN--Consolidation	**SDLC Process Guide**	
45.2.3	Release 3.3	**SDLC Process Guide**	
45.2.3.1	Test Plan (Deliverable 45.2.5)	**SDLC Process Guide**	
45.2.3.2	Production Readiness Review (Deliverable 45.2.6)	**SDLC Process Guide**	
45.2.3.3	DEBT Collection Service	**SDLC Process Guide**	
45.2.3.4	FFEL Lender Payments	**SDLC Process Guide**	
45.2.4	Cross-Program Activities	**SDLC Process Guide**	
45.2.5	Department of Education FMSS	**SDLC Process Guide**	
Deploy	Transition	**SDLC Process Guide**	
45.3.4	Transition Checklists	**SDLC Process Guide**	
45.3.5	Communication Planning	**SDLC Process Guide**	
Implement	Training	**SDLC Process Guide**	
45.4.1	Training Plan (Deliverable 45.4.1)	**SDLC Process Guide**	
45.4.2	Training Support Materials (Deliverable 45.4.2)	**SDLC Process Guide**	
45.5	Technical Architecture	**SDLC Process Guide**	

9.0 ASSURANCE PROCESSES

9.1 Quality Verification Process Matrix

Quality verification consists of 5 major activities:

- Ongoing Management Review
- Process Reviews
- Management Deliverable Reviews
- Peer/ Technical Deliverable Reviews
- CQMAs

These activities occur throughout the development lifecycle as shown in the matrix below. Below is the description of each of the columns in the table:

Process	Activities involved in the verification process
Timing	Frequency or schedule followed in performing a specific verification process.
Doc. Requirements	Documentation produced from the verification process.
Responsibility	Individual or team responsible for performing the process.
Objectives	End-goal or purpose of performing the process, i.e. After performing process, which quality program has been verified?

Process	Timing/Sample Rate	Responsibility	Objectives
Ongoing Management Review			
Project Status Review	Weekly	Project Manager	Monitor and control project's progress
Client Satisfaction Survey (CSS) or Management Survey	Twice a year.	Project Manager	Measure SFA CFO and project management satisfaction
Process Reviews			
SQA Audit List	Quarterly	Project Manager	Project is following processes and standards listed in Section 8.
Management Deliverable Reviews			

Process	Timing/Sample Rate	Responsibility	Objectives
Document Review	After completion of each Project Management Deliverable (100%)	SQA Manager	Product is consistent with standards in Section 8.
Peer/ Technical Deliverable Reviews			
Requirements Review	After completion requirements document (100%)	Team Leader	Product is consistent with standards in Section 8.
Design Review	After completion of each design package (100%)	Development Team Leader	Product is consistent with standards in Section 8 and with baseline requirements.
Code Inspection	After obtaining a clean compile (100%)	Development Team Leader	Product is consistent with standards in Section 8, with baseline requirements, and design.
Unit Test Review	After unit testing (100%)	Development Team Leader	Component testing is complete and accurate; Code is working according to specs
Assembly Test Review	After assembly testing (100%)	Development Team Leader	Objects comprising a logical unit of work are complete, consistent, & interact with each other
Product Readiness Review	After product testing (100%)	Project Manager	System meets client requirements
CQMA			
Client Quality Management Assessment (CQMA)	CQMA schedule	CQMA Partner	Assess the effectiveness of FMS PHASE III service quality mgt efforts

9.2 Preventive and Corrective Action Procedures

The conduct of various status meetings and brown bag sessions are aimed at preventing the occurrence of major problems during the life of the project. The various inspection and review processes, on the other hand, are aimed at detecting errors in the product as they occur and

addressing these to ensure that they do not get passed on to the next phase of the development life cycle. Another procedure that aims to prevent problems and correct errors is the issue tracking system.

- During the weekly status meetings, functional and technical issues and problems will be discussed to promptly address and resolve them before they impact schedule and budget. In addition, critical issues or problems requiring urgent attention will be raised by the team leads and/or the project manager, and meetings and/or conference calls will be scheduled as necessary.
- Causes of errors found during the inspection and review processes will be determined and documented using the Mod Partner – FMS Issue Tracker database. Individual observations (e.g. during the inspection and testing processes) will be discussed during the team and/or project meetings to ensure that the causes of problems or errors are eliminated by the project as a whole.
- Any error detected during product tests that necessitate changes will be documented in the Mod Partner – FMS Issue Tracker database.
- If a flaw lies in the existing project standards and procedures, the related documentation will be modified to reflect the corrections and the team will be notified for immediate implementation.

9.3 Issue Tracking

ISSUE DEFINITION: Issues describe situations that have occurred, or are occurring. Issues can imply something is wrong, or that a key decision needs to be made.

- Identify and document issue using the Mod Partner – FMS Issue Tracker database. Report the issue on the weekly status report and cross reference the issue using the number assigned by the Mod Partner – FMS Issue Tracker database.
- Review issue and analyze impact on deliverables, scope, contingency, resources, costs, schedule, and/or quality. Identify resolution approval party, issue owner, and determine expected time frames
- Research and identify issue solution alternatives
- Escalate issue to program/ senior management when the project cannot resolve the issue internally and when they impede the progress of a project and are beyond the authority of the project manager to resolve. These are generally issues that 1) Cannot be resolved within a project team, 2) Are resolvable with action items, 3) Can be escalated to the next level, 4) Are reactively discovered during the course of development, 5) Affect program/project scope, costs, schedule, projected business performance, or high level design, 6) Affect multiple projects or releases, 7) Involve groups outside the project that affect project delivery
- Monitor issues status and approve or reject resolutions
- Communicate resolutions to stakeholders and affected parties
- Take corrective action

Detailed procedures for using the Mod Partner – FMS Issue Tracker database are located on the F drive.

9.4 Risk Management

RISK DESCRIPTION: Risks describe situations that could occur. If the situation does occur, it would have a significant impact on the project.

The FMS Phase III project will follow the following risk management process:

Individual team members are expected to report their individual risks and issues during their respective weekly team meeting. The risks/issues are reviewed with the team lead to decide whether to escalate to a higher level. Risks/issues needing to be escalated to the Program Manager are included in the risk/issue section of the weekly status report. The risk/issue is tracked and reported (using the issue tracker noted above) until resolution is achieved. Action items (for the actual tool, see \PMO\PMO Action Items.xls) that address these risks and issues are identified during each team's weekly meeting, documented, and tracked through completion.

In addition to being communicated to the respective team/team lead, risks, issues, and other project inter-dependencies are included in project Heat Maps. The weekly Program Team Lead Meeting serves as the opportunity to discuss Heat Maps with engagement management and will also serve as the forum to escalate concerns when commitments are not met.

9.4.1 Individual Project Heat Maps

Each individual Task Order is expected to participate in Pulse Point meetings with the Program Management Office. These meetings occur every Tuesday as a precursor to the Partner Status Meeting on Tuesdays at 4pm. Part of the process for the pulse point meetings requires that a "Heat Map" be produced for each Task Order. The "Heat Map" contains assessments of different basic Project Management areas such as financial condition, contract status, deliverables status, facilities needs, and human resource status.

9.5 Other Quality Verification and Assurance Processes

CQMAs will be conducted to ensure that the project is conducted in line with the firm's QVS objectives.

Software Quality Assurance (SQA) reviews will be conducted to ensure that the project adheres to the quality system requirements, as well as to point out areas for improvement. During SQAs, causes of nonconformities will be identified, corrective actions determined, and preventive action procedures determined as well. The reviewer will verify implementation of these action points during the follow-up audits. For more details, refer to the project SQA Plan.

Client satisfaction surveys will be conducted to measure client satisfaction, determine the strengths and weaknesses of the project team, identify problems and areas for improvement, and identify corrective and preventive action procedures.

As part of the IPT structure for FMS Phase III, independent QA and QC contractors have been added to the team to supplement internal Quality Verification and Assurance Processes. Roles and responsibilities of the QA and QC contractors are identified in the SFA CIO maintained SDLC Project Plan.

10.0 CONFIGURATION MANAGEMENT

Configuration management (CM) refers to the set of tracking and control activities performed with respect to all FMS related design, development, and operations-based products; including the Oracle U.S. Federal Financial application software and any extensions to that product. Generally, CM activities include:

- Determining the severity of a change to the current environment
- Identifying any conflicts among objects due to the change requests.
- Locating the objects and their dependencies that will be affected by the change.
- Identifying all objects to be impacted by the change.
- Propagating changes to impacted objects.
- Propagating changes to object dependencies.

10.1 Environment

Generally with respect to the FMS environment, the CM activities will include a description of the changes (e.g., tracking priorities, statuses, assignments and underlying issues).

CM activities will help ensure the software is correctly configured across the SFA's complex environment that includes:

- Multiple computing environments, each supporting multiple hardware processors/servers;
- Multiple Oracle database servers and application databases; and
- Multiple software versions.

A summary of the different environments, servers, machine configurations, application versions, and databases is shown in Table 1.

Table 1: Environment Descriptions for FMS CM Activities

Computing Environment	Server	Application Version(s) & DBMS Instance(s)	Usage	Access	Ownership
Development	Application	Development	Custom S/W Development	S/W Developers	FMS Project
		Development	Assembly Testing	Test Users	FMS Project
	Database	DEV1	Custom S/W Development	S/W Developers	FMS Project
		DEV2 (Alternate)	Custom S/W Development	S/W Developers	FMS Project
Test	Application	Systems Test	Product testing	Test Users	FMS Project
		Training	Training	Training Staff and Users	FMS Project
		User Engineering (UE)	Demonstrations, End User Rqmts. Analysis	Production Users, Phase II O&M Team	FMS Project
	Database	INT1	Product testing	Test Users	FMS Project
		INT2 (Alternate)	Product testing	Test Users	FMS Project
		TRN1	Training Conduct	Training Staff and Users	FMS Project
		TRNM	Training Development	Training Staff	FMS Project
		TRNM	Demonstrations, End User Rqmts. Analysis	Production Users, Phase III Rqmts. Team	FMS Project
Production	Application	Production	Production	SFA users	SFA
	Database	PROD	Production	SFA users	SFA

10.2 Configuration Items

CM activities will be performed on the following components/products:

- Oracle database management system software.
- Oracle U.S. Federal Financial application software.
- Oracle U.S. Federal Financial application databases.
- Interface software between U.S. Federal Financial application software and legacy SFA applications/databases.

CM activities for computing hardware (e.g., HP servers) and UNIX operating systems software are outside the scope of these requirements.

To accomplish this task, the new FMS project team shall establish a set of procedures for the installation, development, and maintenance of these components. Check-in/check-out control of source code, scripts, binary code, schema definitions, instance generation, documentation, etc. shall be performed. This will ensure that the resulting application environment can be regenerated. Additionally, included within CM tasking is the integration of problem tracking to ensure that problems are resolved quickly and logged for future reference.

The Technical Infrastructure group will track and monitor CM functions. A weekly report will be generated that identifies the prior week's critical (i.e., priority 1) CM activities. A monthly report will be generated that summarizes the prior month's CM activities.

10.2.1 CM Procedures

CM procedures are required for the following activities:

- Oracle DBMS systems software and U.S. Federal Financial application software:
  - Installation: initial software load, major software releases
  - Maintenance/updates: patches, bug fixes, minor releases
  - Instance management: development, test, production, CRP, etc. Includes managing instance creation; monitoring processes, disk utilization, memory utilization, tuning; maintaining activity logs; and problem resolution.
  - Software promotion: development to systems test, systems test to production, etc.
- U.S. Federal Financial application databases
  - Initial database schema generation
  - Table space allocation
  - Test data generation and data refresh: production to systems test, production to development, etc.
  - Initial data load
  - Installation-specific components: triggers, logging, user exits, etc.
- Interfaces
  - Software design documentation (functional and technical)
  - Software coding documentation
  - Operations documentation
  - Module management/version control (e.g., scripts, source/binary code, etc.)
  - Promotion from development to test: documentation, unit test plan, unit test results, module library(ies), script generation, script execution, authorizations required, etc.
  - Promotion from test to production: documentation, system test plan, systems test results, module libraries, script generation, script execution, authorizations required, etc.
- Operations
  - Oracle DBMS and applications startup and shutdown procedures
  - Ad-Hoc and production processing: daily, weekly, etc. batch processes
  - Data backup and recovery procedures
  - Security
  - Reports distribution
  - Capacity planning and performance evaluation
  - Problem tracking and resolution

10.2.2 Application Migration

The following procedures shall be used when promoting objects into a database environment:

- Installing application software into test, CRP, and/or training instances from DEV1/DEV2:
  - Software Developer: identifies new application modules (source, compiled (binary)) to be installed

- FMS DBA: backup application modules in current program libraries (if exists)
- FMS DBA: copy new application modules into target environment
- FMS DBA: update change log

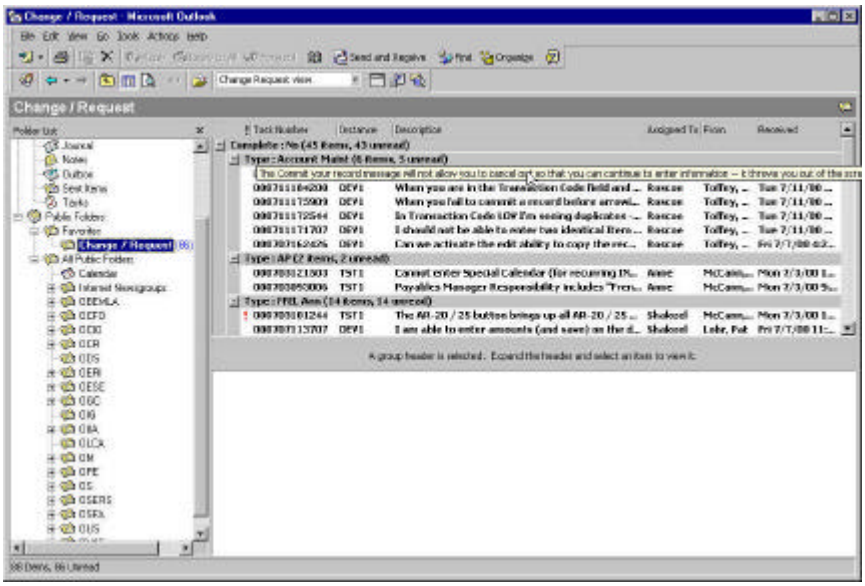
- Migrating databases from one instance (source database) into another (target database):
  - FMS DBA: shutdown source and target databases
  - FMS DBA: backup target database
  - FMS DBA: export source database
  - FMS DBA: import source database into target database
  - FMS DBA: startup source and target databases
  - FMS DBA: update change log
- Installing patches and/or fixes into the database environment:
  - FMS DBA: shutdown database instance
  - FMS DBA: backup database environment (e.g., database tables, DBMS executable modules, application modules, etc.)
  - FMS DBA: apply patch(es), fix(es), etc. to database instance
  - FMS DBA: startup database instance
  - FMS DBA: test database instance to ensure correct patch/fix installation; restore environment if not correct
  - FMS DBA: release database instance for general usage
  - FMS DBA: update change log
- Interim application module maintenance (with modules currently in PROD):
  - Programmer: identifies application modules to be modified
  - FMS DBA: copy production module version to maintenance library with new version number
  - Software Developer: modifies application modules and tests in DEV1/DEV2 environment(s)
  - FMS DBA: copy application modules from DEV1/DEV2 into TST1/TST2
  - Test User: test application modules in TST1/TST2
  - Software Developer: obtain QA/ED approval of test results
  - FMS DBA: overwrite PROD application modules using TST1/TST2 modules
  - FMS DBA: update change log

10.2.3 Change Requests (CRs)

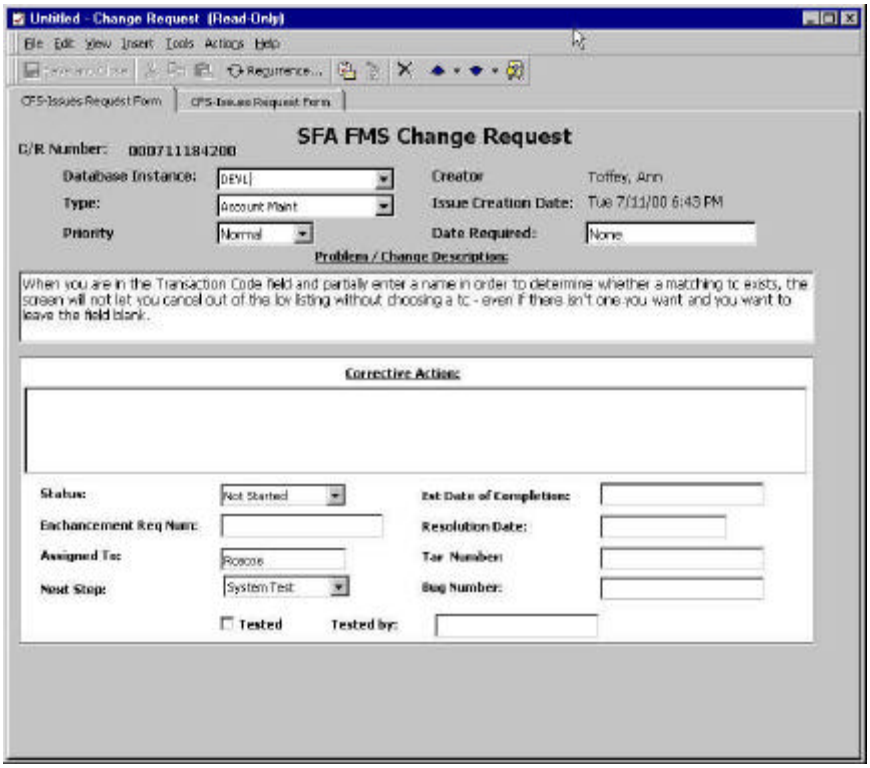
Developers, quality assurance/quality control (QA/QC) personnel, or project management shall complete a CR form to track:

- Program execution errors/abnormal terminations
- Operational inconsistencies
- Documentation inconsistencies
- Proposed enhancements

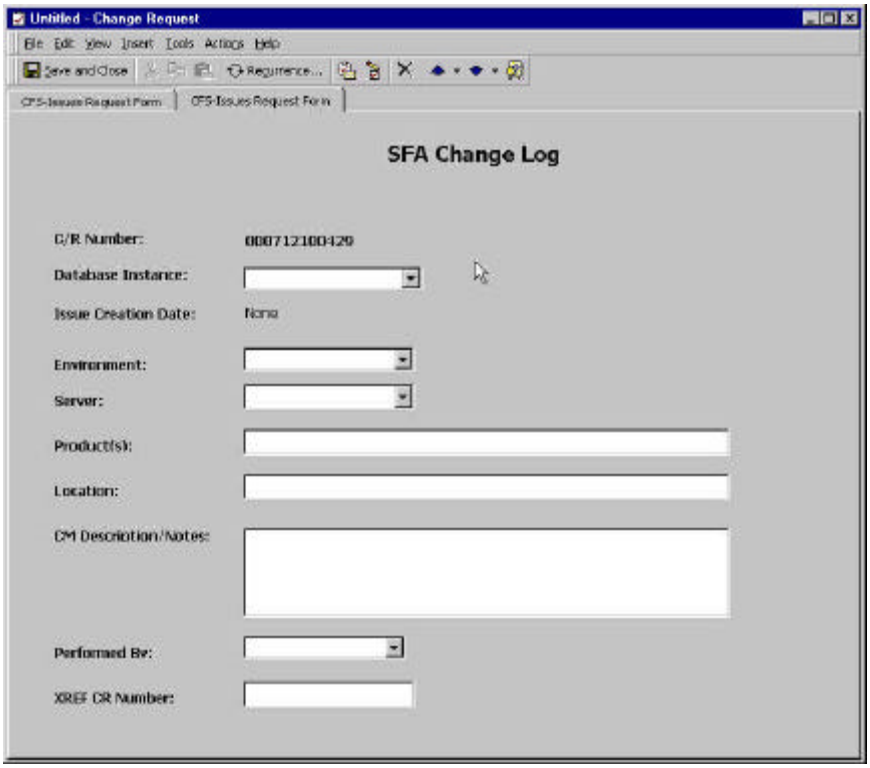
CR forms are maintained via Outlook forms in the OSFA shared directory:



The form consists of two pages. Page one is used for initial data entry.



Page two is used for configuration management tracking and classification.



10.3 CM Audits

The Project Manager will conduct configuration management audits on a quarterly basis to ensure the integrity of data is not lost throughout the lifecycle of the project.

11.0 CLIENT-SUPPLIED ITEMS

11.1 Contractor Supplied Items – Facilities and Support Tools

Most Accenture and subcontractor resources are now located within the Aerospace facility and are provided with the appropriate support tools (phones, furniture, LAN, etc.). The facility is covered by a facilities charge that is assessed to the client for each individual assigned to the engagement. The engagement team provides substantially all facilities and materials. This includes:

- The actual facility (office space, conference rooms, common areas, beverages, kitchen areas, etc.)
- A facility manager and receptionist
- Office furniture (desks, tables, bookcases, chairs, file cabinets, wall boards, etc)
- Office equipment (PCs for each team member, copiers, 3 printers, projectors, fax machines, etc.)
- Office supplies (paper, pencils/pens, folders, notebooks, etc.)
- Telephone (call forwarding, voice mail, long distance, etc.)
- LAN support (servers, routers, hubs, help desk/tech support, LAN administrators, etc.)
- WAN connectivity to client computing environments - EDLAN, Virtual Data Center (VDC)
- WAN connectivity to Accenture Lotus Notes environment
- High speed access to internet
- Other incidentals (plants, etc.)

11.2 Client Supplied Items

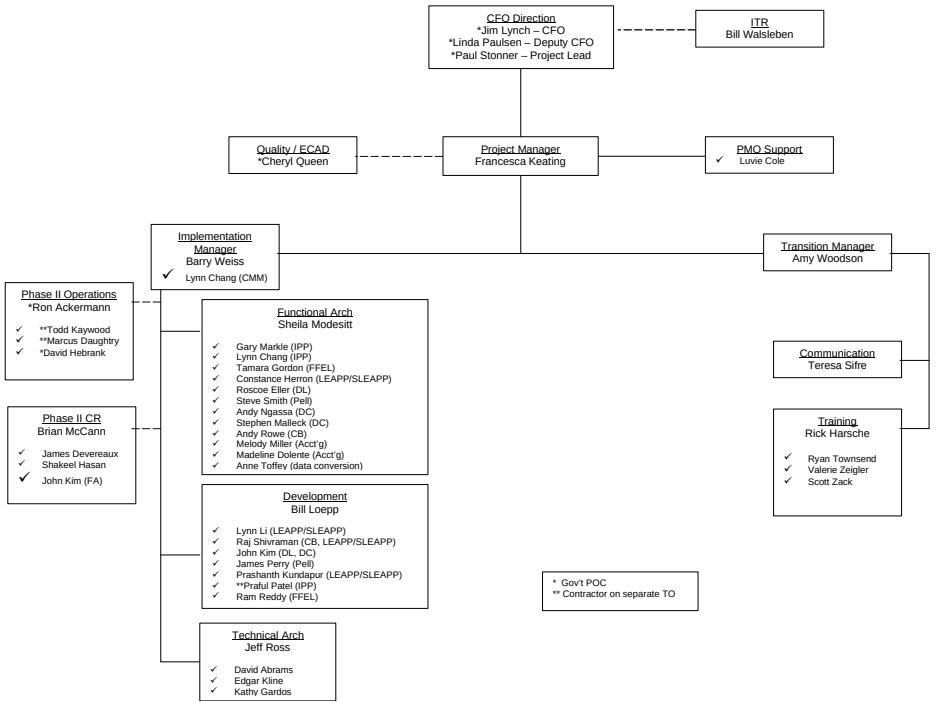
Client supplied items include the following:

- Development PCs
- EDLAN
- VDC

APPENDIX A. FMS PHASE III PROJECT WORK PLAN

The FMS Phase III Project Work Plan identifies the tasks and timeframe for those tasks associated with the project.

APPENDIX B. ORGANIZATIONAL CHARTS



FMS Phase III Project Plan